WHIRRAKEE

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MONTHLY NEWSLETTER OF THE BENDIGO FIELD NATURALISTS CLUB

Bendigo Field Naturalists Club Inc.
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Membership of the Bendigo Field Naturalists Club is open to all those interested in Natural History. The subscription rates are: Single $34; Family $40; Concession: Single $28.50; Family $34. *Whirrakee* subscription only is $34.

General meetings are held on the second Wednesday of each month. The venue for General meetings is the Golden Square Senior Citizens Building, Old High Street, Golden Square. The invited speaker at general meetings starts at 8:00pm and meetings conclude with supper.
If a workshop is held prior to the meeting, it will be advertised and it usually starts at 7.00pm.
The Annual Meeting is held in September.

Committee meetings are held on the third Wednesday of each month at 7:30pm. Members of the Committee are the Office Bearer listed above and the following members: Rob Moors, Maurie Lewis, Glenise Moors, Rod Orr, Bob Ruddick, and there are 3 vacancies.

Excursions Excursions are conducted irregularly and are advertised on the diary page of the *Whirrakee*. The assembly point for excursions is the Golden Square Senior Citizens Building, unless otherwise specified. In addition to local excursions, campouts are held several times each year, usually coinciding with long weekends or holiday periods.

The Bendigo Field Naturalists Club has one active group that meets regularly (the Fauna Study Group) and other groups that meet at irregular intervals.

Fauna Study Group: meets on the fourth Wednesday of the month at 7:30pm in the Golden Square Senior Citizens Building.
Chairman: John Burtonclay, Fadersons Lane, Mandurang (5439 5710)
Secretary: Bill Holsworth, 13 Nabilla Crs., Bendigo (5443 4063)
Equipment Officer: Maurie Lewis (0407 427179)

Bird Observers Group: This group has field excursions and the occasional lecture evening. Please consult the *Whirrakee* for details. Special bird observations should be reported to Anne Bridley 5449 3479.
To propose meetings or excursions please contact Kerrie Norris 5447 8017.

Front Cover Photographer: Liz Martin
These ladybird beetles were found on a *Melaleuca decussata* in Mandurang. This year has been a great year for both species of *Melaleuca* around Bendigo (*M.decussata* and *M. wilsonii*) as it has for many other plant species. Pity the flowering season is always so short. Nevertheless, all you people out there with digital cameras, now you can concentrate on insects or other interesting things around the local bush. Send me the photo via e-mail and I'll never again be short of front cover photos. This year, Liz Martin made sure of that. Thanks very much for that.

WHIRRAKEE

Monthly Newsletter of the Bendigo Field Naturalist Club
Vol. 25, No.11, December 2004
Whirrakee takes its name from the Whirrakee Wattle (*Acacia williamsonii*) which is virtually endemic to the Bendigo region

CONTENT

Item	Contributor	Page
Four old and new bird stories	Keith Graham	3
Greetings from Don Franklin	Bill Holsworth	4
Bird Watch at Gunbower	Heidi Magner	4
November General Meeting - Minute extract	Jan Orr	4
The Jackass Flat Nature Conservation Reserve Zone 1 Firebreak	Shelley Cohn	5
Plunder downunder (from the *Guardian*)	David Fickling	8
Future campouts	SEANA	10

Authors are responsible for the accuracy of the information they use and also for any opinions expressed in their articles.
Contributions will be included as soon as possible after they are received, although articles received more than one week after the monthly General Meeting will probably be too late for inclusion in the next issue of *Whirrakee*.
Articles in *Whirrakee* may be reproduced, but permission should be obtained from the Bendigo Field Naturalists Club, and acknowledgment should be given to the author and the Club. Some back issues are still available on request.

Editor's note
It is always nice to have a special contribution for the December edition of the Whirrakee. For this year, I had saved up several small articles by Keith Graham - these show the traditional and wonderful field natting-type activities of the club. The other major type of activity is shown by Shelley Cohn's article, the passionate and political debates and actions that have helped preserve so many special areas in Bendigo. A nice touch - to have those published together - thank you Keith and Shelley.
Did anybody notice the mistake in one of the photo captions for Tom's article in the last edition? The bird was eating a paw paw, not a cantaloupe. Tom picked it up, of course- he was there.
The fauna group seem to be very organised, on the diary page you see the beginnings of their discussion program for next year, and it looks pretty good.
Whatever colour or temperature your Christmas will be (mine will hopefully be white and cold), I hope it is a peaceful and gentle one. Don't forget to write something down for the eleven editions of Whirrakee in 2005!

Four Old and New Bird Stories

By Keith Graham

Egg Collecting - A Schoolboy's Tale

My primary education was at a small rural school with seldom more than 15 pupils. My parents had always discouraged egg collecting although we sometimes raided the nests of crows that made repeated attacks on our farmyard eggs and chickens.
For my 'Higher Education' I had to ride a bicycle some 9 km to Inglewood HES (Higher Elementary School) were I struggled with the logic of Euclid and the mysteries of irregular French verbs,
I was shocked to find that most of the boys had an egg collection and eggs were traded and swapped some even had a monetary value. Imagine the temptation when a classmate said he was willing to pay the princely sum of 1/- (10 cents) for the egg of a blue crane (white faced heron) – but how to relieve him of his money?
Together with my travelling mate, a scheme was plotted and the trap was set. About this time of year the farm hens sometimes laid ridiculously small eggs, usually without a yolk, similar in size to the heron's egg.
After a couple of washes of blue paint from the paint set and a few handlings with schoolboys' grubby hands, the end product may well have fooled an expert.
So, the perfect crime was committed.
Our classmate got his desired egg for his collection, the heron's nest went unmolested and two country boys scored the biggest ice creams the local café could supply.

Can Birds Reason?

I had often looked at the dainty symmetry of the Willie Wagtail's nest and wondered at the innate ability that went into its construction. Then the local Willies decided to build their nest in a crabapple tree outside our living room window. After the base was in place as each bird arrived with new material it would sit in the nest, rotating left and right, and at the same time pecking the walls to consolidate them. The result was a nest that fitted the birds precisely.
Later in the season, as the days become hotter, they prefer a more shaded site. One year, they chose an open-sided farm shed. Years before I had hung a tricycle from the shed rafter and the birds build on the steel axle. Sadly, when the brooding took place, the nest was unable to grip the shiny steel overturning and spilling its contents.
Undeterred, the birds build a new nest on the upturned one. With the old nest acting as a counterweight, the brood was raised without mishap.
I put this down to mere coincidence, but the following season they chose the same axle but this time at the end, firmly tied to a vertical stay.
Was this just luck, was it acquired knowledge or intelligent reasoning?

Why Do Birds Mimic?

Our farmhouse is more than 2km from our nearest neighbours, pessimists call it isolated, optimists describe it as secluded. So, consequently, except for sparrows, we seldom see introduced birds common in urban areas.
One year a blackbird must have decided that our garden and riverbank was an ideal place to make a home. I know that the blackbird is a feral bird and in some places an utter pest but there is no denying that its song at daybreak is a most melodious tune. One morning, after some weeks, Phyllis said "What bird is singing in our garden?" so I sneaked out to have a look. There, on an exposed branch was our resident Grey Thrush in full voice, and the penny dropped.
Sure, there were variations and improvisations but it was without doubt the blackbird's full repertoire.
Why would a bird with the thrush' unique song wish to mimic some others? Was he trying to prove to all and sundry this was his territory or was he singing for singing sake?

Face to Face with a Peregrine Falcon

A life time of farming has brought many ups and downs but has given me some special moments to view birds of the grassland and open spaces.
One of these birds is the Peregrine Falcon. I have often watched in awe at their speed and manoeuvrability as they attack their prey, even birds as large as an ibis. They are a shy bird and I have never had the opportunity to view one at close quarters until recently.
I was ploughing a paddock after the late seasonal break, and as I came round there was something black in the line of the tractor. As I came nearer it was the body of a 'crow' with a peregrine in charge. As the tractor approached, the falcon didn't budge but crouched with wings spread over its kill. When I stopped, no more than two metres

from the bird, it was an opportunity to view the delicate marking of its feathers and deadly efficiency of its talons and bill.
Presently the bird decided to drag its meal out of the tractor line and when I returned some minutes later it had already begun feeding. For more than an hour it continued to feed but did not leave the scene, standing over the remains all afternoon only to leave at dusk.
Whether it was too gorged to fly or was keeping other predators away to return next morning I will never know as the next day I had moved on.

Don Franklin, Ph.D. sends greetings

by Bill Holsworth

I received an e-mail from Don Frankin who many members will know personally, and all should know him as a co-author of *Eucalypts of the Bendigo District.* Part of his letter to me will be of interest to all *Whirrakee* readers:

" I submitted my PhD thesis ages ago (last December) and graduated a couple of months ago. Since finishing the PhD I've been working at the university as a research fellow, mainly on a project looking at variation in fire-fuel loads at a huge scale - right across of north-western Australia - and what that tells us about a possible counterproductive management-induced grass fire-cycle. I was on the road for four months, sampling; drove 15,000 km, including across Arnhemland and through the Kimberley north to Kalumburu and Mitchell Plateau. Saw some fascinating country and learnt a lot. I've just finished the data analysis and am busy writing it up.
Regards, Don"

Bird Watch at Gunbower

Hello Everyone,
I just wanted to introduce myself, my name is Heid Magner and I will be working at North Central CMA as Project Officer on the Gunbower Forest Project with Emer Campbell.

I wanted to inform you all that we are currently encouraging the community to participate in a BirdWatch survey at Gunbower forest. We are trying to establish what colonial water birds are feeding and breeding in response to the Spring flood water.
Every observation we receive will be going into a prize draw to win dinner for two at Oscar W's Wharfside restaurant, valued at $100 and also receive a North Central 2005 Calendar.

Please forward this information onto to any bird enthusiast that you think would be interested. For further details please check out the web link or feel free to give me a call.

Kind regards Heidi

http://www.nccma.vic.gov.au/PDFs/General%20Publications/Bird%20Observation%20sheet.pdf

Heidi Magner
Project Officer - Gunbower Forest
North Central Catchment Management Authority
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Editor's note: If you are interested in this activity and cannot get the observation sheet from the website above, let me know and I will get a copy to you.

Bendigo Field Naturalist's Club General meeting (10.11.04) - some extracts from the minutes

Editor's note: these minutes are not normally published but every now and then it is good to show the rest of the membership (who don't get to the meetings) what goes on. It might even entice a few people to come along next time...

General Business
Shelley Cohn and Clive Fisher, representing BDEC, spoke at some length about the continuing destruction of the environmental values of the Jackass Flat Nature Reserve.

The main threats stem from urban subdivisions that are allowed next to the reserve boundaries. The buffer zones have been slashed within the park boundary, reducing the size of the reserve. There is now a most unsympathetic fuel reduction burning regime taking place in the reserve to placate the new residents living close by (*see Shelley Cohn's article on the next page).*

The reserve has a diverse plant and animal community that will be permanently altered by the current burning program. The reserve has not been regarded as fire prone in the past and there is no evidence of recent unscheduled burns taking place.

The DSE is using interested community groups like the BFNC to gather data and to act as monitors for its bush burning program. There appears to be no evidence of any formal evaluation of the effects these burns are having on the plant and animal diversity.

Observations

1. Alf Howe, on a recent trip to the Coorong in South Australia, noticed that the water in Lake Albert was fresh and was puzzled as to whether there was a layer of fresh water over the salty water usually found in the lake.

2. Glenise Moors has spoken to bird experts at a recent Birds Australia meeting about the male Flame Robins that she saw at Sedgwick this winter that had pronounced yellow and orange patches on their normally bright flame-red breasts. The opinion was that the cause was most likely to be a dietary deficiency of carotene.

3. Jane Cleary reported that on 3.11.04 at the old Huntly dam she saw a Glossy Ibis. Three glossy Ibis were seen on this dam at the same time of year in 2003. This dam is a very good spot for waders - there were Black-winged Stilts, White-faced Herons and a Common Spoonbill feeding with the ibis.

4. Bev Culvenor reported that 2 Black-tailed Native Hens were recently seen at Kennington Reservoir.

5. Maurie Lewis reported that Rainbow Bee-eaters can be seen at Belleview Rd.

6. Matthew Comer, at 'Goldfields Revegetation' on 4.11.04, saw a Leaden Fly-catcher.

Bendigo Field Naturalists Meeting November 10, 2004
The Jackass Flat Nature Conservation Reserve
Zone 1 Firebreak

By Shelley Cohn, BDEC Committee Member

The Jackass Flat Nature Conservation Reserve has been a favourite walking spot of mine for many years. In the year 2000 I thoroughly enjoyed a 'Spring in the Bendigo Bush' guided tour of the Reserve and at this 'walk' met Clive Fisher, another enthusiast of the area.

We both wanted to learn more about the Reserve and managed to track down the 1980 Jackass Flora Reserve Plant List, prepared by the Bendigo and Castlemaine Field Naturalists' Clubs under the expertise of Ern Perkins and others. Rod Orr subsequently updated this list for us. I think this updated list was published in the *Whirrakee*.

In 2001, I was fascinated to read Peter Ellis' history of the Jackass Flat Reserve in the *Whirrakee*. In it he described the community effort in the 1970s to save the area from the proposed Chinese Village, Dai Gum San, and the flora and fauna surveys that were undertaken at the time. Peter's article gave broad descriptions of where stands of interesting plants were generally located.

I believe that during the early 2000s, at about the same time as Clive and I, and 'Spring in the Bendigo Bush' participants were admiring the diversity of the floral displays of the Reserve, the Department of Sustainability and Environment was gearing up to implement Government policy to protect private assets across the region from fire. This Policy would result in the decision to burn 8000 hectares of the Bendigo Region's threatened Box-Ironbark forests, whether or not they were protected in long fought for National Parks or Nature Conservation Reserves.

As part of this Fire Management Policy somehow, someone in the Department deemed that the 71 hectare Jackass Flat Nature Conservation Reserve could provide the land to provide a Zone 1 Firebreak for Bendigo. This decision-maker deemed that the Reserve had a 'fuel load' - what we call 'understorey' - that was a fire hazard. Thus in excess of 25 percent of the Reserve, or about 20 hectares, would have to have 90 percent of its understorey removed permanently by burning or slashing it.

According to my calculations between 15.5 and 18 hectares of the Reserve has been, or will be burnt, and it is proposed to slash a three kilometre length, three metres wide, on the southern and eastern perimeters of the Reserve. These planned actions have no ecological justification even though, as a Nature Conservation Reserve, the area should be managed by the Department to primarily conserve and protect indigenous plant and animal species, communities or habitats.

During the early 2000s, the City of Greater Bendigo was also preparing Planning Amendments to allow greater intensity of residential, and other, development in the urban area, including the area around the Jackass Flat Reserve and other forested areas.

I understand that as part of the proposed Amendment C60, the City of Greater Bendigo will propose that a buffer of land be provided by developers on private land adjacent to public land. I believe that an agreement has been made between Parks Victoria and the City of Greater Bendigo on how wide this buffer should be, although specific details have not been made available on the purpose of this buffer.

C60 is going to Panel in December. The Field Nats and the Bendigo and District Environment Council will be presenting their case on this issue and others, such as firebreaks on private land. BDEC believes that this buffer zone should protect the ecosystems within the National and State Parks and Reserves, and not be treated only as a firebreak, especially if the private land is forested. Firebreaks should be on already cleared private land.

During the early 2000s, members of the Fields Nats were also coming to terms with the Department's Firebreak Plans through the Whipstick National Park. In response to the horror of the subsequent firebreak burn through the Whipstick, the Field Nats spent a lot of time with Departmental Fire Officers identifying important ecological areas, and proposing an alternative location for proposed Firebreaks around Bendigo. Although not entirely happy with these new jointly developed Fire Plans, the Field Nats believed that they had negotiated a compromise with the Department that would provide greater protection to ecologically sensitive areas from its fire management activities.

When I heard about the proposed burning of the Jackass Flat Reserve in late 2002, I wrote to the Department of Sustainability and Environment outlining my concerns and requesting that the 'burn' be delayed until a proper ecological approach was developed and undertaken. I provided the Department with the updated1980 Flora Survey, extracts from the publication 'Wildflowers of Bendigo, Peter Ellis' 2001 article on the history of the Reserve and a copy of the 'Jackass Flat Flora Reserve' Information Sheet that was developed by the Department of Conservation, Forests and Lands in the 1980s.

I received a letter back explaining that the key reason for the then proposed 8.5 hectare burn planned for the southern block of the Reserve was for fire protection for houses to the southwest. No mention was made of the planned 3 hectare burn in the northern sector of the Reserve, or the additional 7 hectare burn in the south. This came to my attention a couple of weeks ago when Clive told me about the Fire Notification sheet nailed to the Crane Street entrance of the Reserve and during a subsequent discussion with Departmental Officers.

In a meeting with Departmental Officers on Monday, October 25, 2004 (one day prior to the northern sector burn) when we begged and pleaded for them not to burn another area of the Reserve until ecological surveys had been undertaken - this was after all a Nature Conservation Reserve that had no history of fire - it was explained to us again that the burning of the Reserve was part of Government Policy and was not for ecological purposes. Its only purpose was to provide a permanent firebreak, and that although there had been 'procedural deficiencies' to the south side burn, the Department hoped that what they had learned from the previous burn would improve their methods in the north side burn and the additional second area to be burnt on the south side. We were told the previous burn was a 5 hectare area (not the 8.5 hectares mentioned in my correspondence).

When it was pointed out that the Fire Notification Poster nailed to the fence was misleading as it stated that the upcoming burn was for fire management and ecological purposes, we were accused of being pedantic, and that it was a generic poster. We suggested that in protected areas, such as Nature Conservation Reserves, that were being burnt as permanent firebreaks, the Fire Notification Poster should be changed to make it clear that Government Policy, not ecology, was the reason for the burn.

At another meeting with an Officer the Sunday after the northern burn, it was explained to us that this burn had been a success and a huge improvement over the last burn as it was considered at least 90 percent of the fuel load - ie understorey - had been removed, no vehicles had left the track, the fire did not extend outside the area designated and a lot of raking around trees had been undertaken. As no one had pinpointed

individual fire sensitive plants to be saved, the raking had been mainly about the base of trees. Clive had undertaken a quick flora survey of the northern site the night before the burn but had not had time to look up individual plant fire sensitivities. He was thus able to give the Department a list of about 35 different species that were present before the fire.

When asked if we could see the Department's Flora and Fauna section's comments on the proposed burns it was explained to us that no individual species that might be fire sensitive were listed for the Reserve in the Department's data banks as no surveys had been undertaken, thus the Department needed the help of Field Naturalists to identify individual plants that might need individual protection from the next 7 hectares to be burnt in 2005. (This proposed burn includes the area of Honeymyrtle pictured on the back of 'Wildflowers of Bendigo'). Such assistance was also needed in other forested areas to be burnt around Bendigo.

It was at this stage of the meeting that we realised:

• that the work that the Field Nats had undertaken with DSE's Fire Management Department over the past couple of years have not been have incorporated into the Fire Management Plans for the Region;
• that some Departmental Officers were not aware of the Fire Management strategies being developed by the City of Greater Bendigo in its Planning Amendments. such as C60, and its provision for buffers and firebreaks on private land adjacent to public land; and
• that at best, there appears to be a systemic problem within DSE Fire Management with liaison and retention of any information obtained from such entities as Parks Victoria, Flora and Fauna, the Field Nats and the City of Greater Bendigo. How, if there is not a systemic problem, is ecological input being incorporated into the Fire Management Plans?

This apparent systemic failure and the conditions that might foster this failure is illustrated by:

• the flora survey of the Jackass Flat Reserve that I had personally sent to the Department in early 2003 has not been retained, at least in any form retrievable by Parks Victoria or Flora and Fauna. It is these two divisions that might advise caution to Fire Planners, if they had such information. Park's Officers present at the burn had no knowledge of this survey. (Last Sunday Clive had a meeting with a Departmental Officer who has since provided him with plant lists relevant to Box-Ironbark ecosystems that may be of interest. Copies will available at the next meeting).

• Department Officers have requested the community assist them in mapping individual fire sensitive plants and areas so that they can make an effort to protect them during a burn. (A task on a scale that appears impossible to undertake by the Club, even if one believed that a single plant, or small colony of plants, would survive when all around it was burnt, and species symbiosis did not exist). The community is expected to do this, unpaid, in their leisure time, with an implication if they don't, they don't really care. Whilst these volunteers would spend weekends mapping flora, Fire Officers receive payments (with overtime on weekends) for burning the same areas. It might be suggested that the Fire Management Department has a significant conflict of interest as a result of this pecuniary reward to individual officers;

• Field Nat assistance is needed to monitor any recovery of the burnt areas (across the Region, not only in Jackass Flat).

According to the publication *Wildflowers of Bendigo* the bushland areas of Jackass Flat are, or should I say were, a remarkable and significant area within the City of Greater Bendigo. They could be a remnant of the original vegetation of the slopes which met the eyes of the pioneers.
According to Peter Ellis' article, this area, of which the Reserve is only a part, is almost joined right through to the Whipstick near Apollo Hill, connected by uncommitted public land and sewerage reserve between the two. There is also a lot of privately owned bush in this area that may be zoned Residential 1 through C60.

In my mind's eye I see the future of this area as the 50 or so hectares of bush left in the Jackass Flat Nature Conservation Reserve (split in half and fragmented by the permanent Zone 1 Firebreak which will never be allowed to recover its understorey), surrounded first by a three metre wide slashed area around most of the boundary, then a buffer, incorporating a road and firebreak, around the Reserve on private (often forested land), then intense residential development that will further break the corridor of bush to the Whipstick.

I see this scenario repeated all over the region on varying scales and I wonder if this is intended by the State and Local authorities, or whether it is the result of uncoordinated planning and lack of communication. Where does the protection of Box-Ironbark Forests, recognised as being one of the highest stressed and threatened ecosystems in Australia, fit into this dysfunctional model of ecological management?

Only 3 percent of the original extent of Box-Ironbark forests is protected in National and State Parks and other Reserves. The greatest threat to biodiversity is land clearing, yet our society continues to clear land for development which then requires further clearing for firebreaks (in this case on public forested land Reserved for Nature Conservation) and roads which further fragment the landscape.

Something else always takes priority over preservation of biodiversity.

I have since been told that if the Department is asked to burn an area of forested public land, it is obliged to do so. Can a representative of the Department expand on exactly what is stated in the Regulations that allow this, and whether anyone asking for an area not to be burnt, has reciprocal rights?

Plunder down under
David Fickling on how agriculture is drinking Australia dry. From: *The Guardian*
Monday November 08, 2004

contributed by Stuart Fraser

Australia may be dry but it is not parched. The perception of the country as a "wide, brown land" is widespread but it does not bear much relation to the reality of living there.

Certainly, Australia is the driest continent in terms of rainfall per square kilometre. But, unless you are a biologist, that is not a very useful way of considering aridity. Governments are concerned about the quantity of fresh water available for each resident, and on that measure the country is swimming.

Australia's small population and fertile coastline mean that the average resident has access to three times as much fresh water as the average Dutch citizen and 170 times as much as the average Jordanian. If the country had the same population as the US, which covers a roughly similar area of land, Australia would be in trouble. But, in fact, it has the same population as Texas and considerably more water.

The entire north and north-east of the continent have the same, humid climate as south-east Asia and China; its southern edges have the Mediterranean climate of Spain, Italy, Greece and Turkey; weather on the south-east coast is like that in the UK. Sydney, Brisbane and Darwin get twice as much annual rainfall as London, and Adelaide is the only Australian state capital to get less rain than the British capital.

Even when you take into account the continent's drought-and-dearth climate and the higher rates of evaporation under the southern sun, Australia's renewable fresh water supply is still roughly three times that of the UK's. In Europe, only Norway and Russia have greater supplies of fresh water.

None of this is to say that Australia should be profligate with its water. Indeed, it is heartening that, on the whole, Australians take conservation of their resources so seriously. The rest of the world could learn a great deal from a country where, as in Western Australia, three-quarters of homes have dual-flushing toilets and two-fifths have low-flow shower heads.

But there is something false about the apocalyptic tone that normally attends discussion of water here. State premiers scare their citizens with bedtime horror stories of dry times ahead and raise phantom images of coastal cities dying of thirst. Reports warn that even modest levels of immigration will raise the population to levels that will drink Australia dry. Average suburban Aussies believe that it is their washing-up bowls and morning showers that are draining the water from their continent.

But while Australian householders are getting out their ration cards, farmers are sitting down to a banquet. In 2000, the country used 25m gigalitres of water - roughly enough to fill Loch Lomond 10,000 times over. Just 2m gigalitres of that total went to households, and nearly half of that, in turn, was used to water gardens. The vast bulk of it - 17m gigalitres, nearly 7,000 Loch Lomonds - was used in farming.

And yet farming is rarely discussed when the question of Australia's water shortage comes up. A government-sponsored water conservation website, www.savewater.com.au, offers advice on "greywater" treatment

systems, rainwater tanks and the best economy dishwashers for use in restaurants, but makes no mention of the big irrigation industries that consume most of Australia's water.

That blind spot is depressingly common. Water shortages are a matter of constant debate in Australia, but no one ever seems to question why so much water goes to agriculture. In fact, the only time the words "agriculture" and "water" are linked in Australian public discourse is when a drought year comes round in the four-year El Nino cycle, and Australians are hit with pleas to increase allocation for the beleaguered farmers.

Putting agriculture into the equation gives the lie to some of the discussion about the unsustainability of immigration. Since the late 1960s Australia's population has nearly doubled to 20 million people, a far greater increase than the usual projections up to 2050. But, while in the past 40 years unprecedented strain has been put on the water supply, it is not because of all the new householders: domestic water usage has increased by 500,000 gigalitres since the late 1960s, but the water diverted for agriculture has gone up by 10m gigalitres - 20 times the amount allocated to households.

Of course, Australia needs agriculture as much as any other country does. But the amount of water used on the country's farms is out of all proportion to their social, environmental or economic value. Vast amounts of the dry continent's precious water supply goes not towards growing the country's food supply but supporting politically sensitive industries.

Take sugar. Travel up the east coast from northern New South Wales to the far north of Queensland and you pass endless stands of sugar cane. Thousands of hectares of coastal forest were pulled down to make way for the cane farms that now dot a string of marginal electoral seats along the country's east coast.

A century ago, sugar was a profitable industry - not least because most of the workers were indentured labourers from Melanesia, living in conditions one rung above slavery. Nowadays, a global oversupply has made the cane industry so uneconomic that Canberra levies three cents on every kilo bag of sugar, to stop the country's 6,500 cane farmers going bankrupt. But while local pundits view the 330 gigalitres a year used in flushing toilets as a profligate waste of resources, the 800 gigalitres used growing sugar is rarely commented upon.

Cane is not even the worst culprit. One way of measuring the efficiency of water usage is to work out how much of the resource you need for a dollar's worth of finished product. On this measure, healthcare and education use seven litres of water for each Australian dollar (40p), banking uses nine litres, and most manufacturing comes in at less than 50 litres.

Irrigated agriculture consumes scales of magnitude more water. It takes 1,200 litres to make a dollar's-worth of sugar and 1,500 litres to make dairy products or cotton to the same value. The most thirsty crop is rice, which consumes 7,500 litres of water for every dollar of value.

You might not have thought a place as dry as Australia would be in the rice business. But dotted along the Murray River valley, the continent's only major river, there are dozens of farms that collectively use almost as muchwater growing rice as Australia's 20 million people use for all household purposes.

The Murray has a pivotal role in Australian geography and history. Aborigines once built fish farms and Europeans floated paddle-steamers along it; its floodplain cuts a fertile swathe through south-eastern Australia, supporting unique flora and fauna. Adelaide would be a desert without it.

But like its American counterpart the Colorado, the Murray's flow is declining. Salinity is making the land surrounding it barren, and only rarely does water issue from its mouth. Upstream, on the farms of Victoria, New South Wales and Queensland, there is water aplenty; rarely does any of it meet the sea. The Murray is dying so that Australia can export rice to China.

That is no idle claim. An exhaustive scientific report last year concluded that the degradation of the river could only be arrested by returning 1,500 gigalitres to the river a year; local farmers have even squealed at a more modest agreement to return 500 gigalitres.

But rice on its own uses 2,000 gigalitres of the Murray each year, and Australia's 800 cotton growers, who are also mainly based around the Murray, use 2,900 gigalitres of water each year. That last figure is equivalent to 18 times the amount of water used by the UK's entire irrigated agriculture industry.

How can a country that cries water poor continue to consume it in this manner? How can a country with one-third of the population of the UK ...

...continued on back page

South Eastern Australian Naturalists' Association
The next two Campouts.....

The Upper Goulburn FNC is planning an **Autumn Campout from Friday 11th March to Monday 14th March 2005**

The Upper Goulburn Field Naturalists Club invites you to attend the SEANA Autumn Campout situated in our beautiful farming, timber and tourist district, surrounded by wooded mountain and **close to picturesque Lake Eildon** and the winding Goulburn River. We are fortunate to have several National and State Parks close by and also a wealth of local small Reserves which support a great variety of birds all the year and many flowers in Spring.

Venue - Eildon Mountain Lodge is located 20km from Alexandra or 8km from Thornton at 515 Goulburn valley Highway. The actual Lodge is located behind the Eildon Holiday Resort, which is on the corner of the Goulburn valley Highway and the Snobs Creek Road.

Accommodation - The Lodge and a bunkhouse will accommodate up to 150 participants with car parking at your designated area. You will need to supply your own sleeping bags or sheet, doona/blankets, pillowcases and towels. (bottom sheets and pillows are provided). Camp participants have the use of the motel swimming pool.
Good motel units on site may be booked and paid for privately. Pone 03 5774 2415 for this option. please advise when booking hat you are attending the Field Naturalists Conference. Motel rooms are being held for us until 30th November 2004.

Catering - All meals provided from Friday dinner until Monday lunch. Special dietary requirements will be provided for and dining room in BYO with licenced premises on the site. Tea and coffee available as required.

Fuel is available at Alexandra and Eildon.

Facilities - There are no camp or caravan sites available at the Lodge. nearest are at Thornton Caravan Park. Phone 03 5773 2305, Eildon Caravan Park phone 0357742105, The Boulevard Caravan Park Eildon phone 03 5774 2128 or Blue Gums Caravan Park Back Road Eildon phone 03 5774 2567 (we advise immediate private booking if requiring a site).

Theme will be 'Exploring our Forests and Waterways'

Guest Speakers - Friday: Andy Miller (Chief Ranger, Parks Victoria, Eildon), Saturday: Dr Kevin Tolhurst (senior lecturer, Fire Ecology and Management, University of Melbourne), Sunday: speaker to be confirmed (Native Fish or Waterways).

Excursions - Will be lead by locals and visiting speakers into our forests at Eildon and Cathedral ranges Gobur, Alexandra and along parts of our Goulburn River and its tributaries. We are investigating an opportunity to participate in a 'behind the scenes' tour of the Snobs Creek Freshwater Discovery Centre. This would incur an additional fee and must be pre-booked.

Cost $174 for the full camp, $153 for the camp without the Friday night dinner, $20 registration fee (plus a fee for the possible tour at the Snobs Creek Discovery Centre). For BFNC members, these forms are available form the editor (S.Wilkens) or secretary (W.Holsworth). Contact numbers are on the inside front cover of the *Whirrakee*.

Bookings with full payment by 25th January 2005
Enquiries please direct to either Joan Edwards (Semmens), President, 20 Webster Street Alexandra 3714 phone 03 5772 1542 or Lorrain Pyke, Secretary, 149 Crystal Creek Road Alexandra 3714 phone 03 5772 1189.

2006 ANN Get-Together
Some time ago, we also received the first circular for the **2006 Australian Naturalists' Network Get-Together.** This will be hosted by SEANA and held in the Australian High Country from 16th January to 2nd February 2006.
Due to the pressure on accommodation during this time of year in the High Country, SEANA is looking for anybody who firmly knows that they will attending this event. If not enough people show interest at this stage, the accommodation cannot be booked.

If you are interested in responding at this stage, Bill Holsworth has copies of the response sheet required. This, along with a 50 dollar deposit needs to be sent off as soon as possible. The deposit money will be refunded should the get-together not go ahead due to lack of numbers.
It is estimated that the total cost will be about 1500 dollars for the 17 days (based on previous camps).

Diary

The General, Bird Observers Group and Fauna Study Group meetings are held at the Golden Square Senior Citizens Building, Old High Street, Golden Square, unless otherwise indicated.

General Meetings

Wednesday, November 10 7.30pm
Speaker: Dan
Harley "Leadbeaters Possum in a Swamp'

Wednesday, December 8
Christmas Dinner starting about 6.30pm
Bring food and drink to share if you wish.
Speaker: Gerry Gill, "Interpreting the Regional Landscape".

Please note there is no General Meeting in January. The first meeting of the new year is in February and members are usually encouraged to bring their best holiday slides along.

Christmas Lunch at Jack Ipsen's
Sunday December 12

Jack is again expecting our members and their families for the annual Christmas picnic at his property at Lyel Glen near Redesdale. Please bring all your food and drink as well as a chair (if you need one). There are plenty interesting things to see before you sit down for lunch.
Please contact a committee member if you need instructions how to get there.

Fauna Group
This group meets (in the clubrooms) on the fourth Wednesday of the month at 7.30pm. The following is a guide for the discussion topics for next year's meetings (subject to change).

Feb. 23rd - Reptiles
Mar.23rd - Echidna
Apr 27th - Symbiotic Relationships
May 25th - Termites
Jun 22nd - Koala
Jul 27th - Scat identification

Wildlife Rescue & Information Network Inc.
W.R.I.N. is an organisation dedicated to the care of orphaned, sick or injured native animals.
It is fully endorsed by the Dept of Natural Resources and Environment.
Please call our Emergency Number for Help for Fauna in Need. Phone: 0419 356433.

Bendigo Field Naturalists on the web

http://communitysites.impulse.net.au/bendigofieldnaturalists/fnats.html

Any comments are most welcome.

...continued from page 9

....use nearly 100 times as much water on irrigated farming and then lay the blame on householders for their bathroom habits?

It is not that water restrictions should be loosened. Australian cities still need to conserve water, partly because they depend upon the relatively small amount in local catchments, not the total supply in this vast country.

Some farming is also necessary to support the population, nutritionally and economically, but a dry continent, such as Australia, should be concentrating on cereal crops, fruit and vegetables and livestock rather than cotton, rice, and sugar, which together account for more than one-third of the country's agricultural water usage.

If Australia were serious about preserving its water, it would not tolerate the vast waste and devastation of native environments that this amount of irrigated agriculture entails. There is a beam in the eye of the farming industry, while householders fret about the motes in their own. Water conservation may begin at home but it should not end there.